DOCUMENT RESUME

ED 212 824 CE 031 303

TITLE	Safety Instruction Manual for Programs in Agricultural Education.
INSTITUTION	New York State Education Dept., Albany. Bureau of Agricultural Education.
PUB DATE	81
NOTE	43p.
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Accident Prevention; *Agricultural Education; Agricultural Machinery; Agricultural Production; *Agricultural Safety; Animal Husbandry; Bibliographies; *Course Content; Equipment Utilization; Farm Management; Guidelines; Hand Tools; Horses; Instructional Materials; Landscaping; Machine Tools; Ornamental Horticulture; Program Implementation; Resource Materials; *Safety Education; Safety Equipment; *School Safety; School Shops; Secondary Education; Turf Management; *Vocational Education
IDENTIFIERS	Chemicals

ABSTRACT

Designed to help vocational agriculture education teachers develop and implement a comprehensive program of safety instruction, this manual consists of listings of suggested teaching techniques and safety instruction course content for various areas of agricultural education as well as a comprehensive listing of sources for obtaining instructional materials related to safety. A total of 40 suggested teaching techniques are presented for use in agricultural safety instruction. Addressed in a discussion of safety instruction content are the following topics: (1) personal and classroom safety procedures common to all agricultural areas; (2) safety common to specialty areas (shop, tool, power unit and equipment, chemical, turf and landscaping, animal, and miscellaneous safety); and (3) safety unique to special areas (farm production and management and farm mechanics, ornamental horticulture, horse handling and care, and small animal care). In a section on resources and instructional materials, lists are provided of instructional items available on a loan or rental basis, catalogs and directories, sources of safety and related periodicals, and organizations to contact for safety resources. (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED212824

SAFETY INSTRUCTION MANUAL FOR PROGRAMS IN AGRICULTURAL EDUCATION

Fall, 1981

Prepared by a joint committee of teachers of agriculture and staff in the Bureau of Agricultural Education

THE UNIVERSITY OF THE STATE OF NEW YORK
The State Education Department
Bureau of Agricultural Education
Albany, New York 12230

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

R. Trombly

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

THE UNIVERSITY OF THE STATE OF NEW YORK

Regents of The University (with years when terms expire)

1988	Willard A. Genrich, LL.B., L.H.D., LL.D., Litt.D., D.C.S. D.C.L., Chancellor	Buffalo
1988	J. Edward Meyer, B.A., LL.B. Vice Chancellor	Chappaqua
1986	Kenneth B. Clark, A.B., M.S., Ph.D., LL.D., L.H.D., D.Sc.	Hastings on Hudson
1983	Harold E. Newcomb, B.A., LL.D.	Owego
1982	Emlyn I. Griffith, A.B., J.D.	Rome
1983	Mary Alice Kendall, B.S.	Rochester
1984	Jorge L. Batista, B.A., J.D., LL.D.	Bronx
1986	Laura Bradley Chodos, B.A., M.A.	Vischer Ferry
1987	Martin C. Barell, B.A., J.A., LL.B.	Kings Point
1984	Louise P. Matteoni, B.A., M.A., Ph.D.	Bayside
1987	R. Carlos Carballada, B.S., L.H.D.	Rochester
1988	Floyd S. Linton, A.B., M.A., M.P.A., D.C.L.	Miller Place
1988	Salvatore J. Sclafani, B.S., M.D.	Staten Island
1982	Mimi Lieber, B.A., M.A.	New York
1985	Shirley C. Brown, B.A., M.A., Ph.D.	Albany

President of The University and Commissioner of Education
Gordon M. Ambach

Executive Deputy Commissioner of Education
Robert J. Maurer

Acting Deputy Commissioner for Elementary, Secondary and Continuing Education
Gerald L. Freeborne

Assistant Commissioner for Occupational and Continuing Education
Gerald L. Freeborne

Director, Division of Occupational Education Instruction
Dale M. Post

Chief, Bureau of Agricultural Education
Lee A. Traver

Table of Contents

Foreword 1

Suggested Teaching Techniques 3

Safety Instruction 8
- All Agricultural Instructional Areas 9
- Safety Common to Specialty Areas 12
  - I. Shop Safety (AM, CONS, FPM) 12
  - II. Tool Safety (AM, CONS, FPM, OH) 14
  - III. Power Unit and Equipment Safety (AM, CONS, FPM, OH). . . 15
  - IV. Chemical Safety (AM, CONS, FPM, OH) 16
  - V. Turf and Landscaping Safety (CONS, OH). 17
  - VI. Tree Work Safety (CONS, FPM, OH) 18
  - VII. Animal Safety (CONS, FPM) 19
  - VIII. Miscellaneous Safety (AM, CONS, FPM) 20
- Safety Unique to Specialty Areas 21
  - Farm Production and Management and Farm Mechanics 21
  - Ornamental Horticulture 22
  - Horse Handling and Care 23
  - Small Animal Care 25

Resources and Instructional Materials. 26
- Instructional items that may be purchased 26
- Instructional items Available on a Loan or Rental Basis 34
- List of Catalogs and Directories 38
- Sources of Safety and Related Periodicals 39
- Organizations to Contact for Safety Resources by Topic 39

*AM - Agricultural Mechanization

CONS - Conservation

FPM - Farm Production and Management

OH - Ornamental Horticulture

FOREWORD

When accepting employment in a school district, a teacher of Vocational Agriculture accepts the obligation to assure that a safe working environment, safety instruction, and student evaluation will be integral parts of the instructional program. Accordingly, the chief responsibility for implementation of a comprehensive safety program and the prevention of accidents rests with the teacher.

As professionals, agricultural teachers must also become familiar with Federal, State & local safety regulations that affect their program and take steps to be sure they comply with the appropriate standards. It is imperative for the teacher's wellbeing that he/she develop a system to record exactly when each safety topic has been taught together with a record of assessment of each student's knowledge and or ability to practice that which has been taught. This may be achieved through the use of written safety tests, oral tests, and/or observation and recording of the student's applied safety practices.

Over the years concerns have been raised by many teachers relative to the need of a reference manual to assist them with the development and implementation of a comprehensive program of safety instruction as well as the integration of same into their FFA Chapter Safety program activities.

This Safety Instruction Manual for teachers of agriculture is an attempt to address those expressed needs. It is the product of a committee of teachers who provided the major input for its content which was organized by Thomas Wood, Teacher of Agriculture at Salem Central School. It provides a listing of suggested teaching techniques and safety instruction content for Conservation, Farm Production and Management, Horse Handling and Care, Agricultural Mechanization, Ornamental Horticulture and Small Animal Science. The manual also contains a comprehensive listing of sources for obtaining instructional materials related to safety.

Contributing committee of teachers:

James Eggleston - SAC, Broome-E. Tioga Occupational Center
Stephen L. Jones - FPM, AASM, Belleville Central School
David Leavitt - Ag Mech, Otsego County Area Occupational Center
Hugh Maser - HHC, Genesee-Wyoming BOCES Area Occupational Center
George McCabe - Cons., Putman-Northern Westchester BOCES Educational Center

Initial Project Coordination was provided by Richard D. Jones, Associate for Occupational Education Program Development, The State Education Department. The project was "finalized" by Dan Moskwa, Associate, Bureau of Agricultural Education, The State Education Department.

Agricultural Education
Safety Instruction

Suggested Teaching Techniques

AGRICULTURAL EDUCATION
SAFETY INSTRUCTION

Suggested Teaching Techniques

This list of Suggested Teaching techniques has been compiled by the Committee of Teachers who through their collective experiences have found the techniques workable and effective. It by no means is presented as an exhaustive listing nor one that in toto is meant to apply to each teacher in every instructional situation. Consequently, you should feel free to select and implement those most applicable to your teaching environment and those which would ensure a comprehensive safety instructional program.

You will note that some of the teaching techniques refer to FFA Safety Activities. By incorporating your safety instruction with selected Chapter Safety Activities your students will respond with a greater sense of motivation and enthusiasum and have a deeper appreciation for safety practices in addition to providing a community service.

Accordingly, it is recommended that you review the National FFA Chapter Safety Award Handbook to assist you with integrating your safety instruction with your FFA chapter's activities. This handbook includes detailed information on setting up a Chapter Safety Award Program in addition to a comprehensive listing of Safety Resource Aids.

- Motivation - Prior to beginning instruction in each topic, the students should be motivated as to the importance of reasons for acting in a safe, responsible way. Relating stories of accidents which have occurred may be helpful.

- Set Example - Teachers should set good examples by always following all safety procedures while working with students.

- Demonstration - The instructor should personally demonstrate in the accepted, safe manner each task or job to be done by the student. Safety instruction should be incorporated in all units of instruction.

- Student Practice - Under the teacher's guidance each student should individually practice the tasks until they can perform them to the minimum accepted standard.

- Written Testing - After lecture, demonstration, and practice each student should pass a written safety test in each safety area.

- Performance Testing - After lecture, demonstration, and practice each student should pass a performance test in each area to demonstrate his or her ability to safely perform the task .

- Safety Record Keeping - A safety folder containing written and performance safety test material should be kept for each student.

- Supervision - The teacher should constantly be observing all students for safety practices.

- Safety Violations - Students observed violating safety procedures for the first time should be strongly warned, questioned about their knowledge of safety in the area, and reinstructed as to proper procedures. Students who repeatedly violate safety procedures endangering themselves as well as others should be removed from the area and not allowed to re-enter until guarantees are made that the safety violations will not reoccur. Local school policy should prevail.

- Grading - The grade the student receives should reflect to a significant extent the student's adherence to safety rules and procedures.

- Teach From Accidents - When an accident does occur, call the class together and use it as a teaching example.

- Student Safety Reports - During the course of the year assign each student in a class a safety topic, have them research it, write a paper on it, and present it to the class.

- Provide lists of safety practices to students. Have students read, sign and date one copy for your file and retain one copy for their notebook.

- Safety Foreman or Engineer - In each class assign or elect a safety foreman whose job it is to be alert for hazards and violations and see that they are corrected.

- Student Safety Award - At the end of each quarter or year present a safety award to the student in each class who has the best safety record.

- Class Safety Award - At the end of each quarter or semester present a safety award to the class that has the best safety record.

- School Safety Award - In June have an award presented by the school for the safest shop or lab.

- FFA Safety Committee - Appoint an FFA safety committee, have them identify areas of safety in need of improvement and develop a comprehensive program to improve the situation.

- Farm Bureau Safety Award Program - Have the Safety Committee chairperson apply for the Individual Farm Bureau Safety Award. Have the Safety committee apply for the Farm Bureau Chapter Safety Award.

- National FFA Safety Award Program - Have the FFA Chapter apply for the FFA Safety Awards.

- Safety Visitors to Class - Invite nurses, doctors, rescue squad members, and safety specialists to your classes to discuss all aspects of safety and first aid.

- Field Trips - Take field trips to operations with good safety records. Have students identify safety precautions and features observed.

- Safety Surveys - Have class members survey the shop and community to determine what kinds of accidents are occurring, what hazards are present, and what solutions should be initiated to reduce the accidents.

- Show Safety Films

- Safety Posters - Display safety posters with appropriate message and reminder in each hazard area of the shop or laboratory.

- Safety Bulletin Board - Have a large lighted bulletin board in shop area displaying large safety posters, notice of safety contests, etc.

- School Membership in National Safety Council - As a result of the school joining the National Safety Council, you will be able to use their award system, receive reminders and psychological boosts on safety, use their films, pamphlets and posters, and keep up on safety industry innovations, research, and new topics.

- Personalization of Supplies and Equipment - Assign each student their own items of personal equipment and supplies. This may encourage the student to wear the equipment, take better care of the equipment and use the supplies more sparingly.

- Number of Days Without Accidents Sign - Post at the shop or laboratory entrance the number of days that have passed without an accident.

- Safety License - Assign each student a safety card about the size of a driver's license. Each time a safety violation occurs, punch the license. For each offense "fine" the student in some prearranged way. For repeat violators, suspend the license and privilege.

- Entrance Door Warning Posters - At each entrance to the shop or laboratory, display a large poster stating that a hazardous area is to be entered and that specific items of equipment must be worn and specific precautions observed.

- Color Coding - Using the established color code, paint all appropriate items and areas in the shop or laboratory.

- Walk Areas - Paint bright lines on the floor showing areas to be left open and uncluttered.

- Emergency Procedures - Post in conspicuous areas all emergency phone numbers and procedures to be followed in the event of an accident.

- Identify Emergency Equipment - Conspicuously make visible all safety equipment and supplies - ex. fire extinguishers, fire blankets, first aid kits, etc. Inform students of location and use.

- Visitor Protective Equipment - Have conveniently located special safety equipment reserved for visitors and guests.

- Teach Safety Program to Elementary Students - Have class members go to elementary grades and teach units on safety.

- Take Emergency Medical Care Training - Where possible each teacher should take classes on first aid and emergency medical care so that he/she will be prepared in the event of an accident. Note: Check legal implications and limitations of providing first aid and emergency medical care.

- Proper Matching - Match the student with a task he or she is capable of safely handling. Students come to us with a wide range of skills and abilities. As the student develops skills, gradually increase the level of difficulty of his/her task.

- Work in Pairs or Teams - Whenever possible and practical, have the students work in teams or pairs. By doing this if a student gets caught or needs help, another student is immediately available to assist him or her. Try not to let students perform hazardous operations out-of-sight of anyone.

Safety Instruction

Agricultural Education

Safety Instruction

The ensuing content outlines for safety instruction were initially developed by the committee of teachers with representation from each instructional program area. A draft was sent by subject matter specialization to a large group of selected teachers throughout the state. The content listings consequently reflect a consensus summary of their contributions.

It is neither suggested nor intended that the content be taught as a single module of instruction. It is, however, recommended that the teacher use it as a guide from which to develop lesson plans incorporating the necessary safety instruction as related to each unit or module taught throughout the year. Care should be taken by the teacher to record and file all safety instruction by date of specific units identified by content areas, dates the student(s) performed a given task safely or unsafely, safety tests with grades, etc.

Special care should be given to the appropriateness of students giving injections to animals and the federal regulations governing the storage and use of injection needles, syringes and related equipment.

SAFETY INSTRUCTION
for
All Agricultural Instructional Areas

TOPICS

I. Personal Safety
- A. Good Safety Attitude
  1. No horseplay
  2. No unnecessary noise
  3. Full attention to job being done
- B. Recognizing Common Hazards
  1. Thrown objects
  2. Pinch points
  3. Pull in points
  4. Crush points
  5. Animal kicking, biting, striking
  6. Hot and cold materials
  7. Toxic fumes
  8. Hazardous chemicals
  9. Sharp edges
  10. Slippery surfaces
  11. Electrical shock
- C. Preventing Falls
  1. Recognizing hazards
  2. Slippery foot surfaces
  3. Cluttered steps and areas
  4. On-Off accidents
- D. Eye Protection
  1. Hazards
  2. Shields and goggles
  3. Lense shades
- E. Hearing Protection
  1. Noise hazards and problems
  2. Earplugs
  3. Earmuffs
- F. Burn Protection
  1. Burns-types and treatments
  2. Fire extinguisher locations
  3. Fire extinguisher-types and operation
  4. Fire blankets
  5. Exits
  6. Smoking hazards-No Smoking areas
  7. Electrical hazards
  8. Chemical hazards
  9. Emergency showers
- G. Avoidance of Fumes and Harmful Gases
  1. Proper ventilation
  2. Fan operation
  3. Respirators and face masks
  4. Poisoning
  5. Welding fumes
  6. Paint fumes
  7. Exhaust fumes
  8. Pesticide fumes
  9. Medicine fumes
  10. Chemical fumes
- H. Electrical Shock Protection
  1. Equipment in good condition
  2. Proper grounding
  3. Dry areas
- I. Proper Lifting Technique
  1. Protect hands and feet
  2. Straight back, bent knees
- J. Proper Clothing and Protective Equipment for Safety
  1. Shop coats
  2. Coveralls
  3. Hard hats
  4. Hard toe shoes
  5. Gloves
  6. Rain gear
  7. Goggles
  8. Skull cap
  9. Respirator
  10. Earplugs
- K. Accident Care
  1. Location of first-aid kit
  2. First-aid treatment and procedures
  3. Nurse location
  4. Emergency telephone numbers
  5. Accident reporting forms
- L. Personal Hygiene
  1. Clean uniform, clothes, and personal equipment
  2. Clean hands and fingernails before and/or after work
  3. Hair length and care

All Agricultural Instructional Areas (cont'd)

II. Class, Shop and Laboratory Procedures
   A. Rules and Regulations
      1. Explained by instructor
      2. Signed by student
      3. Kept on file
      4. 100% score on written test

   B. Organization
      1. Work areas
      2. Location and arrangement of supplies
      3. Wash up area
      4. Clean up procedure
      5. Visitor sign in and tour procedure

   C. Safety Features
      1. Emergency power on/off switches
      2. Light switches
      3. Ventilation controls
      4. First aid kit
      5. Telephone and intercoms
      6. Emergency showers
      7. Exits
      8. Fire alarms
      9. Fire extinguishers
      10. Fire blankets
      11. Flammable liquid storage area
      12. Toxic chemical storage area
      13. Medicine and injection storage area
      14. Safety equipment storage area
      15. Eyewash station

SAFETY INSTRUCTION

Agricultural Mechanization

Conservation

Farm Production and Management and Farm Mechanics

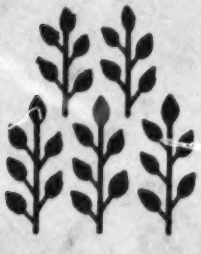
Horse Handling and Care

Ornamental Horticulture

Small Animal Care

Safety Instruction
Common to Specialty Areas

I. SHOP SAFETY



A. Electric Arc Welding Safety
   1. Theory of Welding
   2. Procedures for basic and advanced welding
   3. Hazards
      a. shock
      b. burns
      c. fumes
      d. slag
      e. ultraviolet rays
      f. fires
      g. explosions - volatile substances
   4. Protective devices and equipment
      a. helmet and shields - proper lenses
      b. safety glasses
      c. ventilation fans
      d. gloves
      e. tongs
      f. fireproof screens
      g. proper grounding of welder
      h. dry area
      i. aprons and shop coats
      j. skull caps
   5. Handling and storage of welding unit
   6. Safe disposal of hot metal, slag, and electrode stubs
   7. Frequent inspection of equipment for hazards
   8. Frequent cleaning of welding area

B. Oxyacetylene Welding Safety
   1. Theory of welding and cutting
   2. Procedures for basic and advanced welding and cutting
   3. Proper handling and storage of cylinders
   4. Operation and care of torch and regulators
   5. Proper setup, lighting and shut off procedures
   6. Hazards
      a. burns
      b. explosions
      c. fires
   7. Protective devices and equipment
      a. shields and goggles
      b. safety glasses
      c. ventilation fan
      d. gloves
      e. tongs
      f. aprons and shop coats
      g. skull caps
      h. protective screens
   8. Handling and storage of welding unit
   9. Safe disposal of hot metal and materials
   10. Frequent inspection of equipment
   11. Frequent cleaning of welding area

C. Compressed Air Safety
   1. Recognizing hazards
   2. Safe, cautious use

D. Painting Safety
   1. Proper ventilation
   2. Protective clothing
      a. eyes
      b. respirator
   3. Proper techniques
   4. Safe handling of cleaning tools
   5. Proper use of paints and solvents
   6. Proper storage of solvents

SHOP SAFETY Con't

E. Carpentry Safety
   1. Tools and their safe use
   2. Safe building and framing techniques
   3. Climbing safety
   4. Jacking safety
   5. Lifting safety
   6. Scaffold safety

F. Concrete and Masonry Safety
   1. Safe use of tools and equipment
   2. Adequate bracing
   3. Laying blocks safely
   4. Lifting
   5. Cutting masonry materials
   6. Scaffold safety

G. Plumbing Safety
   1. Tools and their safe use
   2. Lifting safety
   3. Safe handling of acids and resins
   4. Safe soldering procedures
   5. Safe use of polychemicals
   6. Proper ventilation
   7. Safe threading techniques

H. Electricity Safety
   1. Basic electricity theory
   2. Wire code identification
   3. Wiring circuits
   4. Safe use of electricity
      a. overload protection devices
      b. insulating wires, fixtures
      c. grounding
      d. polarization
      e. safe use and handling of motors
      f. underwriters

I. Toxic Fume Safety

J. Soldering Safety

II. TOOL SAFETY

A. Hand tools - hammers, saws, shears, loppers, knives, screwdrivers, etc.
   1. Identification of tools
   2. Job tool designed for
   3. Selection of proper tool for job
   4. Safe and proper use of each tool
   5. Hazards of each tool
   6. Inspection of tool for defects before use
   7. Adjustment of tools
   8. Maintenance of tools
   9. Repairing damaged tools
   10. Transporting and carrying tools
   11. Safe and proper tool storage
   12. Identifying and tagging unsafe tools

B. Power Tools - electric drills, hedge shears, bench grinders, power saws, etc.
   1. Identification of tools
   2. Job tool designed for, capacities & limitations
   3. Selection of proper tool for job
   4. Safe and proper use of each tool
   5. Hazards of each tool
      a. electrical shock
      b. fire
      c. cuts
   6. Inspection of tool for defects before use
   7. Adjustment of tool
   8. Guards and shield in place
   9. Maintenance of tool
   10. Transporting and carrying tool
   11. Safe and proper tool storage
   12. Identifying and tagging unsafe tools

III. POWER UNIT AND EQUIPMENT SAFETY

A. Tractors, Bulldozers, Trucks, etc.
   1. License and certification requirements
   2. Identification of parts and function of each
   3. Selecting proper unit for job
   4. Safe and proper operation of each unit
   5. Hazards of each unit
   6. Safety inspection before operation
   7. Daily maintenance check
   8. Adjustment of unit
   9. Repairing unit
      a. splitting unit
      b. jacking unit
      c. tire care
      d. fuel systems
      e. cooling systems
      f. hydraulics
      g. electrical systems
   10. Guards and shields in place
   11. Transporting unit
      a. loading
      b. chaining
      c. winch and chain binders
      d. trucking
      e. unloading
   12. Cleaning unit
   13. Safe and proper storage
   14. Identifying and tagging defects

B. Equipment Safety - mowers, tillage, crop-harvesting, clippers, sod cutters, aerators, sprayers, etc.
   1. License and certification requirements
   2. Identification of parts and function of each
   3. Selecting unit for job done
   4. Safe and proper operation of each unit
   5. Hazards of each unit
   6. Safety inspection before operation
   7. Daily maintenance check
   8. Adjustment of unit
   9. Repairing unit
      a. jacking
      b. tire care
      c. hydraulics
   10. Guards and shields in place
   11. Transporting unit
      a. loading
      b. chaining
      c. winch and chain binders
      d. trucking
      e. unloading
   12. Cleaning unit
   13. Safe and proper storage
   14. Identifying and tagging defects

IV. CHEMICAL SAFETY

A. Poisoning and common hazards
B. Cetification requirements
C. Reading and understanding labels
D. Following directions on labels
E. Personal protective equipment
F. Selecting proper application equipment
G. Safe operation of equipment
H. Selecting proper chemicals for job
I. Proper mixing of chemical
J. Proper application of chemical
K. Cleaning of equipment
L. Applicator wash up procedure
M. Discarding empty containers
N. Storage of chemicals and equipment
O. Poison control center-phone and location
P. Antidotes for poisons and location

V. TURF AND LANDSCAPING SAFETY

A. Landscape Planting
   1. Safe use of hand and power tools
   2. Handling of heavy awkward objects with the care for personal safety
   3. Care for well-being of the plants

B. Landscape Maintenance
   1. Pruning
   2. Pest control
   3. Lawn maintenance
   4. Fertilization

C. Landscape Construction
   1. Site safety
   2. Tool transport and use safety
   3. Required instruction in necessary equipment
   4. Handling materials such as concrete morter mix
   5. Constructing of wood forms, proper use of carpentry tools
   6. Working with railroad ties
      a. cutting with chain saws
      b. drilling pilot holes for pipes and spikes
   7. Working with stone, blocks, bricks
      a. handling heavy materials
      b. cutting stone and block

D. Greenskeeping
   1. Machinery and equipment operation
   2. Chemical safety

VI. TREE WORK SAFETY

A. Recognizing hazards
B. Tree climbing
   1. Use of ropes, knots
   2. Knowledge of trees
   3. Climbing techniques
   4. Proper crotching
   5. Mobility in tree
   6. Skinning in a tree
   7. Use of gaffs, safety belt

C. Tree Pruning
   1. Hand saw cuts
   2. Lowering techniques
   3. Chain saw cuts
   4. Pole saw and pruner cuts

D. Felling trees
   1. Job site safety
   2. Determining direction of fall
   3. Chain saw cuts

E. Limbing techniques
   1. Use of hand and power saws
   2. Recognizing pressure and tension points

F. Bucking tree sections
   1. Use of saws and wedges
   2. Using slope properly

G. Topping
   1. Cutting and roping techniques
   2. False crotching
   3. Use of spikes (goffs) in topping

H. Brush Disposal
   1. Cutting and loading brush
   2. Proper maintenance and use of brush chipper

I. Skidding and loading logs and pulp
   1. Safety in use of cant hooks, tongs, and chains
   2. Use of loaders

J. Cordwood production
   1. Maintenance and use of axe, sledge and wedges
   2. Safe transportation of tools
   3. Setting up safe area, chopping blocks
   4. Using wood splitters

K. Chain saws (considered as a separate item due to tremendous increase in use and incidence of accidents)
   1. Proper maintenance, adjustment, sharpening and operation
   2. Mandated Safety features
   3. Proper use on ground
   4. Proper use in trees
   5. Proper transportation
   6. Fueling safety

L. Forest fire control
   1. Proper techniques and equipment
   2. Inherent hazards
   3. Protective gear

VII. ANIMAL SAFETY

A. Animals and their characteristics

B. Respecting animals

C. Approaching animal in the correct manner

D. Recognizing hazards of animals
   1. kicking
   2. biting
   3. striking
   4. butting
   5. stepping on

E. Restraining animal

F. Confining animal

G. Preventing spread of diseases
   1. From animal to man
   2. From animal to animal

H. Safe use of animal equipment
   1. Clippers and trimmers
   2. Vacuum cleaners
   3. Emasculators, Dehorning equipment, etc.

I. Treating animals for disease and sickness
   1. Using medications
   2. Using hypodermics
   3. Using chemicals

J. Emergency care of animals

K. Handling animals in emergencies
   1. Unnatural behavior
   2. Human life vs. animal life

L. Safe housing of animals
   1. Proper layout and organization
   2. Isolating new animals
   3. Proper cleaning and disinfecting
   4. Ventilation control
   5. Temperature control
   6. Non-slip floors

M. Safe feed storage
   1. Rodent proof
   2. Protected and secured

N. Transporting animals
   1. Use of truck and trailer
      a. checking before using
      b. hooking trailer properly
      c. cautious driving
      d. how to back, turn and stop trailer
   2. Loading and unloading
      a. how to load
      b. securing animal in vehicle
      c. how to unload

O. Disposal of dead animals
   1. Local laws and regulations
   2. Disease prevention

VIII. MISCELLANEOUS SAFETY

A. Snowmobile Safety
B. Boating Safety
C. Hunting Safety
D. Trapping Safety
E. Soil Testing Safety
F. Milk Testing Safety
G. Snowshoeing Safety
H. Mountain Climbing and Hiking Safety
I. Fishing Safety

SAFETY UNIQUE TO SPECIALTY AREAS

I. Farm Structure Safety
   - A. Standard Building Construction features
   - B. Lightning Protection
   - C. Fire Protection
     1. Safe wiring
     2. Arrangement of building
     3. Fire alarms
     4. Fire fighting equipment
     4. Fire exits
   - D. Stairs and Steps
     1. Uncluttered
     2. Handrails
     3. Warning signs
   - E. Nonskid floors and steps
   - F. Temperature control
   - G. Ventilation control
   - H. Sewage disposal
   - I. Storage facilities for flammables
   - J. Adequate storage space
   - K. Roping off danger areas
   - L. Appropriate hazard warning signs

I. Greenhouse and Nursery Production
   A. Plant Propagation
      1. Knives, various tools for safety consideration

   B. Greenhouse Operation
      1. Sterilization equipment
      2. Pest control
      3. Repairing, replacing and glazing windows
      4. Using electricity safety

II. Floral Design and Arrangement
   A. Safe Use of Equipment and Supplies
      1. Safe use of knives
      2. Safe use of shears
      3. Safe use of wire cutters
      4. Handling wire carefully
      5. Safe operation of steel pick machines
      6. Safe use of styrofoam cutters
      7. Careful handling of glassware

   B. Flowers That May be Dangerous
      1. Names of potentially dangerous flowers
      2. Hazards of flowers
      3. Antidotes for flower poisons

I. Horse Safety
   A. Safety Procedures for Horse Handling and Care
      1. Approaching a horse in the correct manner
      2. Putting on the halter
      3. Putting a horse on cross ties
      4. Lead shank
      5. Correct side to stand on when leading
      6. Removing a horse correctly from the stall
      7. Putting horse back in stall
      8. Movement while leading (must be slow)
      9. Walking horse outside
      10. Restraining devices to use
      11. Putting a horse in the paddock
      12. Brushing and grooming
      13. Lunging
      14. Twitch application
      15. Picking up feet
      16. Holding horse for veterinarian
      17. Bandaging - proper work position
      18. Feeding - with horse in stall

   B. Stall Cleaning
      1. Secure horses
      2. The rake-fork-broom-wheelbarrow

   C. Putting Harness on a Horse
      1. Crupper
      2. Surcingle (girth)
      3. Bridles
      4. Boots
      5. Hopples

   D. Taking Horse to the Jog Cart
      1. Jog cart
      2 Shaft

   E. Driving the Horse

   F. Saddling Horse
      1. Martingale
      2. Saddle pad
      3. Saddle
      4. Girth
      5. Stirrup leathers
      6. Breast plate

   G. Riding the Horse

   H. Put on Lunge Cavesson

   I. Using the Whip
      1. Lunging
      2. Jogging
      3. Work session

   J. Handling the Foal
      1. In stall
         a. approaching a horse in the correct manner
         b. putting halter on
         c. cross ties
         d. removing and entering
      2. Leading
         a. lead shank
         b. correct side to stand on when leading
         c. movement while leading
         d restraining devices to be used
         e. picking up feet

   K. Horse Transportation
      1. Use of truck and trailer
         a. checking trailer before using
         b. how to hook trailer properly
         c. cautious driving
         d. how to back, turn and stop trailer properly
      2. Loading
         a. how to load
         b. how to secure horses in trailers
         c. how to unload

HORSE HANDLING AND CARE con't

L. Safety on the Racetrack
   1. Hard hat
   2. Glasses
   3. Safety factors while driving or riding
      a. how to enter racetrack
      b. how to work racetrack
      c. where to drive or ride on track
      d. how to leave racetrack

M. Using Medications
   1. Know the different kinds of leg paints
      a. how to apply
      b. danger to hands and eyes
      c. what are harmful to horses when left open
      d. what areas not to apply to
      e. what medications not to mix
      f. when to stop application
   2. Proper bandage application
   3. Wound treatment
      a. when to give tetanus shot
      b. how to treat different types of wounds

N. Electrical Equipment
   1. Therapy boots
   2. Clippers
   3. Immersion heaters
   4. Automatic waterers in stalls

O. Handling the Injured Horse
   1. Be prepared for unnatural behavior

P Handling Horses in Fire Emergencies
   1. Be prepared for unnatural behavior
   2. Cover head
   3. Human life vs. horse life

I. Animal Safety
   A. Selecting and Handling
      1. Proper lifting and handling techniques
      2. Restraining
      3. Proper clothing
      4. Preventing spread of diseases
         a. from animal to man
         b. from animal to animal
      5. How to properly approach a dog

   B. Dog Grooming and External Care
      1. Care of animal when injured
      2. Proper use of equipment such as clippers and dryers
      3. Proper grounding of electrical equipment

   C. Care and Handling of Small Animals (Rodents)
      1. Restraining
      2. Prevention of diseases
      3. Proper clothing

   D. Handling Primates
      1. Restraining
      2. Prevention of diseases - Example: TB
      3. Proper clothing

   E. External Parasites
      1. Proper use of insecticides - Dangers to students and animals

   F. Internal Parasites
      1. Properly administering medication
      2. Restraining animals during medication

   G. Emergency Care of Animals
      1. Restraining
      2. Prevent spread of disease

   H. Anesthesia and Euthanasia
      1. Restraining
      2. Proper injections

   I. Housing Animals
      1. Layout of facilities to insure safety of students and animals
      2. Isolating new animals
         a. for disease prevention
      3. Proper cleaning and disinfecting
         a. Materials - detergents and disinfectants
         b. Methods - electric washers - safety glasses
      4. Ventilation and temperature control
      5. Wet floors
      6. Feed Storage
         a. rodent proof
         b. air tight

   J. Care of Fish
      1. Proper feeding
      2. Proper heating of room and water

   K. Proper Disposal of Dead Animals
      1. Autoclaving
      2. Be familiar with local laws

   L. Transporting Animals
      1. Securing animals
      2. Selecting proper equipment

   M. Handling Animals in Emergencies (Fires)
      1. Unnatural behavior
      2. Human life vs. animal life

SAFETY INSTRUCTION

Resources and Instructional Materials

The main purpose of the listing of instructional materials in this section is to bring your attention to what is available for your use. The committee has not attempted to select, preview, screen, or recommend any given item, rather, it is recommended that you obtain descriptive catalogs from the sources provided to enable you to select those materials that best meet your instructional needs.

I. Instructional Items That May be Purchased

A. The following publications are available from:

Instructional Materials Service
3 Stone Hall
Cornell University
Ithaca, New York 14853

Catalog Number	Publication	Cost	
The following materials are published by the American Association for Vocational Instructional Materials, Athens, Georgia			
202	Operating Grounds Keeping Tractors, 1974 96pp	3.95	3.00*
204	Applying Pesticides, 1976 96pp	5.95	4.50*
204TG	Applying Pesticides - Teacher Guide	2.00	1.50*
204SW	Applying Pesticides - Student Workbook	2.00	1.50*
903	Shop Safety Skills, 1979 84pp	6.75	5.10*
903TG	Shop Safety Skills - Teacher Guide	2.00	1.50*
903SW	Shop Safety Skills - Student Workbook	2.00	1.50*
AV903	Shop Safety Skills (audio visual set)	155.00	116.25*
AV204	Applying Pesticides (audio visual set)	195.00	146.25*

*IMS Subscriber Price 1981 Catalog

The following materials are published by John Deere

Catalog Number	Publication	Cost	
FMO-181B	Safety, 1975 334pp	10.30	7.75**
FMO-182S	Safety (Slide Set 240)	109.00	
FMO-187K	Safety (Instructor Kit)	20.75	

**Discount for ten or more copies

The following are additional materials available from IMS

M 801 WHEEL-TYPE LOADER DOZER. Basic safety procedures for the operation of a wheel-type loader-dozer. Well illustrated. 47 pages $1.00

M 802 SAFE OPERATION OF AGRICULTURAL EQUIPMENT - STUDENT MANUAL. 1976 edition. 10 units covering instruments and situations and safety standards. Question-answer work sheets and safety check sheet. Written to meet the safety training prescribed under the Code of Federal Regulations for the employment of children below age 16. 107 pages $3.15

M 803 SAFE OPERATION OF AGRICULTURAL EQUIPMENT - INSTRUCTOR'S MANUAL. To be used with M 802. Includes tests with answers, driving test and course layout. 48 pages $3.00

M 804 4-H TRACTOR OPERATING AND MAINTENANCE. By use of work sheets and quizzes, this publication familiarizes the student with the safety procedures necessary in maintaining and operating a tractor. 53 pages. Cornell . . . . $.75

M 805 SAFE POWER SHOP EQUIPMENT OPERATION. 174 pages. Penn $4.75

M 806 PREVENTING TRACTOR OVERTURNS. Human, machine and environmental factors affecting tractor operation, what hazards commonly exist in the work environment and the defenses against them. 20 pages. IL . . . . . $.60

M 807 SAFETY CHARTS FOR POWER TOOLS. Charts listing safety rules for Arc Welder, Drill Press, Grinders, Oxyacetylene Welder, and Tilting Arbor Saw. Each chart on 8½" by 11" heavy paper, plastic laminated. IL. $6.00

M 808 POWER TOOL SAFETY AND OPERATION. Common woodworking, metalworking, and welding power tools. Covers part identification, safe operational procedures, general safety practices and 10 completion questions. 96 pages. Hobar . . $4.75

AGRICULTURAL MECHANICS SAFETY UNITS. Operating features, causes of accidents, types of injuries, safety practices to follow and a safety test. Pads of 25 copies. Minn. Units on safety are available from the following:

M 809 DRILL PRESS SAFETY $2.55

M 810 PORTABLE AND STATIONARY GRINDER SAFETY $2.20

M 811 GENERAL SHOP SAFETY $3.35

M 812 HAND TOOL SAFETY $3.95

M 812 ELECTRICAL SAFETY $2.20

M 814 ARC WELDING SAFETY $2.55

M 815 OXYACETYLENE SAFETY $2.55

*M 816 FARM ACCIDENT RESCUE. Contains information on machinery accidents, and farm chemical accidents. 33 pages. Cornell $2.00

*M 817 A COLOR CODE FOR SHOP SAFETY. Discusses purposes of a color code preparation of equipment, uses of specific colors and applications of color. 12 pages. IL. . . . . $.60

M 801ST SAFE TRACTOR CARE AND OPERATION. Daily service, personal protective equipment, road and field hazards, hitches, PTO's and hydraulic systems and proficiency exams and contests. 72 slides with script and tape. Cornell $23.00

M 802ST FARM SAFETY - A FARM HAZARD SURVEY. Common hazards found on N.Y.S. farms. 53 color slides/script and tape. Cornell $19.50

M 801F THE CIRCULAR SAW - HOW TO USE IT SAFELY. 57 frames. (B&W). IL $8.55

M 802F THE PORTABLE ELECTRIC SAW - HOW TO USE IT SAFELY. 57 frames. (B&W). IL $8.55

M 803F THE DRILL PRESS - HOW TO USE IT SAFELY. 48 frames. (B&W). IL $7.20

M 804F THE POWER GRINDER - HOW TO USE IT SAFELY. 48 frames. (B&W). IL $7.20

M 801TR TRACTOR SAFETY. Safety procedures when starting, hitching, maintaining, doing belt work, and operating the tractor. Set of 40 transparencies w/script. IL. $10.15

F 613S SAFE HORSE TRAILERING. A complete checklist for using a horse trailer. 77 color slides with script. Cornell $20.00

F 901 HANDLING AND RESTRAINING TECHNIQUES FOR PETS AND LABORATORY ANIMALS. Photographs and drawings with accompanying text shows proper procedures for handling and restraining almost all animals kept for pets and laboratory use. 61 pgs. Cornell. $3.00

H 401F USING POWER LAWN MOWERS SAFELY. Safety procedures to follow before and during the operation of a power lawn mower. 78 frames. Color. IL. $9.50

H 401M USING POWER MOWER SAFELY. Covers basic safety procedures for walking and riding mowers. Suitable for use with beginning and special education students. Set of 40. Cornell . . . . . $.200

C 107 POWER CHAIN SAWS, THEIR CARE AND USE. How to best use a chain saw. Included are saw adjustments, sharpening, and buying and using a power chain saw. 13 pages. Penn . . . . . $.75

H 909 TOOL SHARPENING SHEETS. Contains one each of: Sharpening a Mower Blade, Knife, Axe or Hatchet, Spade or Shovel, Hoes, Grass or Hedge Shears, Pruning Shears and Fitting a Shovel Handle. 8 pages. Hobar . . . . . $.60

B. The Following Materials are Available from:

National Safety Council
P.O. Box 11933
444 N. Michigan Avenue
Chicago, Illinois 60611

Item Number	Type of Material*	Item Name	Cost**
192.49	B	The Disablers	.13
195.14	B	Hand Held Hazards	.15
195.61	B	A Moving Story	.12
195.62	B	How to Lift and Carry	.15
192.24	B	Chain Saw Savvy	.32
599.33	B	From Tots to Teens	.11
599.92	B	Consumer Product Safety and You	.16
192.44	B	The Choice is Yours	.17
192.45	B	Partners in Trouble	.43
329.25	B	Don't Drink and Drive	.20
329.46	B	The Safe Way to Drive	.13
329.93	B	The New Look in Road Signs	.36
599.85	B	Detection-First Step to Fire Protection	.27
195.81	B	Be a Fireguard	.18
699.41-1	B	Power Tools	.19
699.41-4	B	Personal Protective Equipment in Agriculture	.19
699.41-5	B	Respiratory Protection in Agriculture	.19
699.41-6	B	Hearing Protection in Agriculture	.19
699.41-7	B	Fire Protection on the Farm and Ranch	.19

Item Number	Type of Material*	Item Name	Cost**
699.41-8	B	Safety Hazard Checklist for Agriculture	.19
699.41-9	B	Falls Prevention-Home and Yard	.19
699.41-10	B	Falls Prevention-Agricultural Work	.19
699.41-11	B	Safe Handling of Anhydrous Ammonia	.19
699.41-12	B	Fire Protection on the Farm and Ranch	.19
699.41-13	B	Safe Movement of Farm Equipment on Public Roads	.19
699.41-14	B	Lawn and Garden Equipment Safety	.19
699.41-15	B	Electrical Safety on the Farm and Ranch	.19
699.41-16	B	Gardening and Shielding Farm Equipment	.19
699.41-17	B	Safe Use of Pesticides	.19
699.41-18	B	Safety With Animals	.19
699.41-19	B	Ladder Safety	.19
699.41-20	B	Safety Management in Agricultural Operations	.19
699.41-21	B	Wagon Safety	.19
699.41-22	B	Farm Tractor Safety	.19
699.41-23	B	Prepare for Emergencies	.19
699.41-24	B	Grain Harvest Safety	.19
699.41-25	B	Safe use of Farm Fuels	.19
629.22	A	Farm and Ranch Safety Guide	2.35
629.23	K	Farm and Ranch Safety Management Kit	4.55

Item Number	Type of Material*	Item Name	Cost**
699.30	S	No Riders Sticker	.19
681.14	P	Farm Poster Set	2.25
677.01	ST	Well Balanced Home	50.00
629.50	K	Farm and Ranch Safety Seminar	102.00
192.23	B	Pocket Emergency Handbook	.30
021.39	A	Accident Facts	7.00
399.91	B	The Bike Book	.12
082.07	B	Fun Afloat	1.34
082.15	B	On Guard in the Garden (Booklet)	.18
082.16	ST	On Guard in the Garden (Slide Show)	55.00
082.08	ST	Childsafe (Slide Show)	46.80
082.09	B	Childsafe (Leaflet)	.15
083.02	B	RV Camping Guide	.70
082.13	F	Suddenly in Command (Film)	210.00
082.14	B	Suddenly in Command (Booklet)	.14
199.41	K	Supervisors Safety Training Kit	27.00
176.39	ST	Safety and You (Slides)	50.00
176.44	ST	Do It Yourself Safety Slides	50.00
176.50	ST	Lockout Slides	50.00
171.74	F	Let George Do It (Film)	225.00
171.82	F	Safety Everywhere	226.00
278.07	F	Spot the Driving Errors	296.00

Item Number	Type of Material*	Item Name	Cost**
171.85	F	The Little Things that Count	225.00
129.03	A	Handbook of Occupational Safety & Health	7.80
129.72	A	Power Press Safety Manual	7.50
129.96	A	Personal Safety in Chemical and Allied Industries	16.00
192.11	B	How Good Housekeeping Helps You	.20
126.71	B	Lift Safely	.20
599.94	K	Consumer Product Safety Awareness Package	54.00
192.12	B	Eye Protection	.20

** 1980 Catalog Price

* B = Booklet or Bulletin
A = Book
K = Kit
S = Stickers
P = Posters
ST = Slides and Tape Set
F = 16mm Film

C. The Following is Available from:

Superintendent of Documents
United States Government Printing Office
Washington, D.C. 20302

"Occupational Safety and Health in Vocational Education, A Guide for Administrators, Faculty, and Staff" Cost: 4.25

D. The following are available from:

Dactican Education Materials Consultants
11 State Street
Pittsford, New York 14534

Filmstrip and Cassette

a. Handling, Restraint, Gavage of Mouse 8201

b.	Handling, Restraint, Gavage of Rabbit & Guinea Pig	8203
c.	Handling, Restraint, Gavage of Rat	8204
d.	Handling, Restraint, Gavage of Hamster and Gerbil	8205
e.	Handling, Restraint, and Administration of Subcutaneous and Intramuscular injections for the dog	8206
f.	Handling, Restraint, and Administration of Subcutaneous and Intramuscular injections for the cat	8207

II. Instructional Items Available on a Loan or Rental Basis

A. The following films are available from: (Secure Catalog for Descriptions)

Audio-Visual Resources Center
8 Research Park
Cornell University
Ithaca, New York 14850

SAFETY

Automobile
Automobile Tire Hydroplaning
Driver in Command
Help Is. . .

Bicycle
Bike People
Bike Safety
Day the Bicycles Disappeared, The
Keep a Safe Bike
Two Wheels toward Safety

Disaster
Help Is. . .
Hurricane - Before the Storm
Rising Waters
Without Warning

Farm, Farm Machinery
Agricultural Tractor Safety
Chain Saw Safety
Easier Ways of Logging
Farm Tractor Safety

Farm, Farm Machinery (cont'd)
Farm Tractor Safety, A Family Affair
For the Rest of Your Life
Handling Livestock Safely
Loading and Unloading Heavy Equipment on a Trailer
Protect your Livestock from Radioactive Fallout
Running Smooth
Safe Operation of Farm Tractors, The
Safe Operation of the Backhoe and Bulldozer
Safe Use of Crop-Harvesting Machinery, The
Second Chance
Wagon Safety

Fire
Burning Issue, The
Condemned
Days of a Tree
Firemen at Your Door

SAFETY

Fire (cont'd)
Have a Wonderful Evening:
A Babysitter's Guide to Fire Safety
Home Heating with Wood
Little Smokey
Man against Fire
Mystery at Smokey Hollow
Smoke in the Hollow
Smokey's Story
There Comes a Tomorrow
To a Babysitter
Voice of the Forest
Watershed Wildfire
Your Clothing Can Burn

First Aid
For the Rest of Your Life
Heart Attack, The
Help Is. . .
Poisonous Plants
Rising Waters
Without Warning

Home and Garden
ABCDs of Lawn and Garden Tractor Safety
Accidentally Yours
Chain Saw Safety
Home Heating with Wood
Lawn Mower Safety
Poisonous Plants
Wild Edible Plants

Pesticides (see Pest Control)

Plants
Poisonous Plants
Wild Edible Plants

Snowmobiles
Play Safe with Snowmobiles
Winter Fun the Safe Way

Work
Easier Ways of Logging
Safe Side Clyde

B. Miscellaneous Sources

GENERAL

Attitude for Safety. 20 min., 16mm., sd., color and b & w, Job Corps, Staff Resource Div., 1200 - 19th Street, N.W., Washington, C.C. 1965
Summary: Designed to alert Job Corps conservation staff to accident potentials.

Be a Pro. 14 min., 16mm., sd., color. Industrial Accident Prevention Association, 90 Harbour Street, Toronto 1, Ontario, Canada. 1965
Summary: Portrays necessity of learning and adhering to safety procedures in industrial operation. Especially for Canadian audiences.

Everything to Lose. 26 min., 16mm., sd., color. Caterpillar Tractor Co., Peoria, Ill. 1965
Summary: Dramatizes consequences of taking chances in typical shop situations.

It's Your Accident. 23 3/4 min., 16mm., sd., color. Association of Mill and Elevator Mutual Insurance Cos., 2 North Riverside Plaza, Chicago, 60611. 1965
Summary: Points out how emotions and attitudes can affect safety.

INSTRUCTIONAL

Automotive Shop Safety. 23 min., 16 mm., sd., b & w, 1963. U.S. Army Pictorial Center, 35-11 35th Avenue, Long Island City, New York 11001.
Summary: Illustrates common automotive shop situations in military operations, explaining safe procedures.

Case of the Cluttered Corner. 10 min., 16 mm., sd., b & w, 1958. Associated Films, Inc., 347 Madison Avenue, New York 10017.
Summary: Broken leg leads to finding out how and why the corner got cluttered.

Close Shaves. 15 min., 35 min., filmstrip, sd., b & w, Zurich Insurance Co., 111 West Jackson Blvd., Chicago 60604.
Summary: Near accidents are warnings of danger.

Easy Does It. 15 min., 35 mm., filmstrip, sd., b & w, 1951. Zurich Insurance Company, 111 West Jackson Blvd., Chicago 60604.
Summary: Handling materials--includes a photo quiz.

Electricity--Principles of Safety. 11 min., 16 mm., sd., color, 1960. Coronet Instructional Films, 65 East South Water Street, Chicago 60601.
Summary: Points out common hazards of electricity and their causes.

Everybody's Job. 15 min., 35mm., filmstrip, sd., b & w, 1953. Zurich Insurance Co., 111 West Jackson Blvd., Chicago 60604.
Summary: How a safety committee works.

Heads You Win. 15 min., 35 mm., filmstrip, sd., b & w, 1954. Zurich Insurance Company, 111 West Jackson Blvd., Chicago 60604.
Summary: Safety in the small shop

How to Have an Accident at Work. 8 min., 16 mm., sd., color, 1960. Walt Disney Productions, 16 mm Film Division, 350 S. Buena Vista, Burbank, Calif. or 545 Cedar Lane, Teaneck, N.J.
Summary: Donald Duck disregards all rules on the job and blames fate for his troubles.

Lucky. 18½ min., sd., color, 1959. Union Carbide Nuclear Co., P.O. Box 1410, Paducah, KY. 42202.
Summary: Shows how attitudes can affect worker and his job.

Mind Your Back. 13½ min., 16 mm., sd., color, 1965. Australian News and Information Bureau, 636 Fifth Avenue, New York 10020.
Summary: Demonstrates right and wrong methods of lifting/handling objects.

Safety for Sure. 11 min., 16 mm., sd., b & w, United States Department of Agriculture, Motion Picture Service, Washington, D.C. 20250 or loan from nearest United States Forest Service Office.
Summary: Presents four key points to be taught on any job.

Safety in the Shop. 10 min., 16 mm., sd., b & w, Mogul's, 112 West 48th Street, New York 10019.
Summary: Emphasizes the supervisor's responsibility in teaching and maintaining safe practices.

School Shop Safety. 14 3/4 min., 16 mm., sd., color, 1968. Film Associates, 11559 Santa Monica Blvd., Los Angeles 99025.
Summary: Covers the problem of developing safety consciousness in the industrial arts shop.

Shadow of Doubt. 5 min., 16 mm., sd., color, 1965. Pacific Telephone, Room 507, 620 C Street, San Diego, Calif.
Summary: Covers supervisors' role in preventing accidents.

PERSONAL PROTECTIVE EQUIPMENT

It's Up to You. 11½ min., 13 mm., sd., color, 1961. Bausch & Lomb, Film Distribution Department, Rochester, New York 14602.
Summary: Dramatic eye protection story which presents the stark reality of an eye injury.

No Accidents. 10 min., 16 mm., sd., b & w. International Film Bureau, Inc., 332 South Michigan Avenue, Chicago 60604.
Summary: Importance of floors and machines free of shavings and litter. Also safe clothing, shoes, and goggles.

Take Your Choice. 12½ min., 16 mm., sd., color, 1964. Detroit Society for the Prevention of Blindness, 51 W. Warren Avenue, Detroit, Michigan 48201.
Summary: Eye protection in high school chemistry laboratory.

TOOLS: HAND AND POWER

A New Approach to Saw Safety. 12 min., 16 mm., sd., color, 1958. Brett-Guard Corporation, 100 South Van Buren Street, Englewood, N.J. 07631.
Summary: Features sponsors see-through guard

Design for Safety. 26 min., 16 mm., sd., b & w, 1952. United States Department of Labor, Bureau of Labor Standards, Washington, D.D.
Summary: Safety integrated in engineering courses. Deals with machine guarding and other safety materials.

Don't Drop Your Guard. 10 min., 16 mm., sd., b & w, 1951. Aetna Life Affiliated Cos., 151 Farmington Avenue, Hartford, Conn. 06115.
Summary: Demonstrates protection provided by different types of machine guards.

The Grinding Wheel. 20 min., 16 mm., sd., color, 1964. Norton Co., Publicity Department, Worcester, Mass. 01606.
Summary: Care, use, storage, and dressing procedures.

Grinding Wheel Safety. 20 min., 16 mm., sd., color. Norton Co., Publicity Department, Worcester, Mass. 01606.
Summary: Principal causes of wheel breakage. Need for proper guarding. Care and selection based on ASA standard safety code.

It Didn't Have to Happen. 14 min., 16 mm., sd., b & w, 1953. International Film Bureau, Inc., 332 South Michigan Avenue, Chicago 60604.
Summary: Careless or self-assured worker who scorns use of guards and safety devices on woodworking machines endangers life.

Machines. 7 min., 16 mm., sd., b & w. Contemporary Films, Inc., 267 West 25th Street, New York 10001 or 614 Davis Street, Evanston, Ill. 60201.
Summary: Reconstructs the steps that led to fatal accident caused by carelessness and handling machinery.

Safe in Hand. 20 min., 35 mm., filmstrip, sd., b & w, 1946. Associated Films, Inc., 347 Madison Avenue, New York 10017.
Summary: How to pick and use right tool safely.

Safety Depends on You. 13½ min., 16 mm., sd., b & w or color, 1959. Public Service Films, Inc., 6626 Romain Street, Hollywood, Calif. 90038.
Summary: Covers all general hand tool safety precautions.

Sharp as a Razor. 15½ min., 16 mm., sd., b & w or color, 1959. Public Service Films, Inc., 6626 Romain Street, Hollywood, Calif. 90038.
Summary: Sharp cutting tools are safe when used properly.

FIRE PREVENTION AND FIRE SAFETY

Are You Sure. 14½ min., 16 mm., sd., color, 1962. Associated Films, Inc., 347 Madison Avenue, New York 10017 or regional office.
Summary: Fire employees think they caused serious industrial fires. Each reviews his careless acts.

III. LIST OF CATALOGS AND DIRECTORIES

Associated Films, Inc., "Free Loan Films--Sales and Rental Subjects." Associated Films, Inc., 347 Madison Avenue, New York 10017. 70 p.

Coronet Films, "Coronet Films." Coronet Films, Sales Department, Coronet Building, Chicago 60601, 128 p.

Industrial Training Aids, P.O. Box 326, Naperville, Ill. 60540.

Modern Talking Picture Service, Inc., "A Catalog of Business and Professional Films." Modern Talking Picture Service, Inc., 3 East 54th Street, New York 10022. 12 p.

National Farmers Union Insurance Companies, Loss Prevention Department, 1277 University Avenue, St. Paul, Minnesota 55104.

National Fire Protection Association, 470 Atlantic Avenue, Boston, Mass. 002210

National Safety Council, "National Directory of Safety Films," (annual). 425 North Michigan Avenue, Chicago 60611.

Society for Visual Education, Inc., "Educational Film Strips." The Society, 1345 Diversey Parkway, Chicago 60614. 64 p.

3M Company, "Visual Products, School Catalog." Visual Products Department, 2501 Hudson Road, St. Paul, Minn. 55119. 23 p.

United States Department of Agriculture, "Films." Agriculture Handbook Number 14. Superintendent of Documents, United State Government Printing Office, Washington, D.C. 20241. 86 p.

IV. SOURCES OF SAFETY AND RELATED PERIODICALS

Industrial Hygiene Digest (monthly), Industrial Health Foundation, 5231 Centre Avenue, Pittsburgh, Pennsylvania 15232.

Job Safety and Health (monthly), United States Department of Labor, Occupational Safety and Health Administration. Available from: United States Government Printing Office, Washington, D.C. 20402.

National Safety Council, 425 North Michigan Avenue, Chicago, Illinois 60611.

Occupational Hazards (bimonthly), Industrial Publishing Corporation, 614 Superior Avenue West, Cleveland, Ohio 44113.

Safety (quarterly) Greater New York Safety Council, 302 Fifth Avenue, New York, N.Y. 10001.

V. ORGANIZATIONS TO CONTACT FOR SAFETY RESOURCES BY TOPIC

The National FFA Chapter Safety Award Handbook, National FFA Supply Service, P.O. Box 15159, Alexandria, Virginia 22309.

The handbook provides a bibliography of safety resource aids through a listing of the names and addresses under five headings: Home Safety, Occupation, Occupational Safeguards, Recreation, and Traffic. Lists of safety materials can be obtained by writing to the individual companies and agencies in the bibliography.